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|--|-------------|----------------------|---------------------|------------------|
| 10/596,628   | 04/10/2007  | Ichiro Kawabuchi     | 30761-2             | 8553             |
| 21130 7590 05/26/2010<br>BENESCH, FRIEDLANDER, COPLAN & ARONOFF LLP<br>ATTN: IP DEPARTMENT DOCKET CLERK<br>200 PUBLIC SQUARE<br>SUITE 2300<br>CLEVELAND, OH 44114-2378 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| WATTS, ALAN B  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 3656   |             |                      |                     |                  |
| NOTIFICATION DATE  |             | DELIVERY MODE        |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@beneschlaw.com

### Office Action Summary

**Application No.**

10/596,628

**Applicant(s)**

KAWABUCHI ET AL.

**Examiner**

ALAN B. WAITS

**Art Unit**

3656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-17 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 12/11/2006

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1 and 4 are objected to because of the following informalities: the limitation "a manner that when" is recited. The use of when implies some action that may or may not take place. Perhaps the use of --as-- in place of "when" would remedy said problem. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 3, 4 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims recite the limitation "shapes and sizes....are determined so that" followed by a physical constraint such as "a first relative rotation amount of said first sector gear relative to said first rack gear becomes equal to a second relative rotation amount of said second sector gear relative to said second rack gear". Applicant has only shown two different shapes and sizes capable of making the invention work as disclosed. There are an infinite number of combinations of shapes and sizes that could make Applicant's device work as disclosed. This subject matter was not described in

the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of every possible combination of shapes and sizes.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-6, 11-15 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "shapes and sizes of said first sector gear and a position therebetween". It is unclear what other element the position is between.

Claim 3, 4 and 14 recites the limitation "becomes" several times. It is unclear if the become limitations (for example, "a first sliding direction of said first sector gear along the second virtual center line becomes relatively opposite to a sliding direction of said second sector gear along the second virtual center line") is obtained as the device moves or if the become limitation is achieved through selection of the shape and size of the elements (the become limitation is inherent to the geometry of the device).

Claim 3 recites the limitation "viewed in projection". It is unclear what viewed in projection means.

The term "relatively opposite" in claims 3 and 14 is a relative term which renders the claim indefinite. The term "relatively opposite" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 4 recites the limitation "a minimum distance between said center of rotation and the second virtual center line". This limitation is unclear and confusing. There is no distance between the center of rotation of the second virtual center line and the second virtual center line.

Claims 5 and 15 recite the limitation "a driving force applying mechanism which generates at least one driving force among...". It is unclear if this is an "or" statement or if it should be a "a least one selected from the group consisting of" limitation.

Claim 6 recites the limitation "said rope tension output generating mechanism". It is unclear if this is the same as the "rope tension generating mechanism" previously recited above.

Claim 11 recites the limitation "sliding recess portions to be slidably fit into said sliding projections". It is unclear how recesses can be fit into projections.

Claim 12 recites the limitation "can be mechanically adjusted". The use of "can" in the claim makes it unclear if the limitation following "can" is optional or a necessary limitation.

Claim 13 recites the limitation "a first rack gear provided...", "a first sector gear...", "a second rack gear...", and "a second sector gear...". It is unclear if these are the same elements are previously recited in claim 1 or if they are completely new elements in addition to the ones recited in claim 1.

Claim 14 recites the limitation "a second rack gear". It is unclear if this is the same element as recited in claim 13 or a new element.

Claim 17 recites the limitation "said driving rope added for". It is unclear if the word 'added' means there is another driving rope or if this is the same driving rope as previously recited.

***Double Patenting***

6. Applicant is advised that should claim 9 be found allowable, claim 10 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Allowable Subject Matter***

7. Claim 1 is allowed.
8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).
9. Claims 3-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached notice of references cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN B. WAITS whose telephone number is (571)270-3664. The examiner can normally be reached on Monday through Friday 7:30 am to 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alan B Waits/  
Examiner, Art Unit 3656

/Richard WL Ridley/  
Supervisory Patent Examiner, Art Unit 3656